# The World of Learning 1984-85

The statistic and a shortelive guide to contain a scentific and coloural institutions all over the world

# The World of Learning 1984-85

THIRTY-FIFTH EDITION

#### Thirty-fifth Edition 1984-85

© Europa Publications Limited 1984 18 Bedford Square, London, WC1B 3JN, England

All rights reserved. No part of this publication may be photocopied, recorded, or otherwise reproduced, stored in a retrieval system or transmitted in any form or by any electronic or mechanical means without the prior permission of the copyright owner.

Australia and New Zealand
James Bennett (Collaroy) Pty Ltd, 4 Collaroy Street,
Collaroy, NSW 2097, Australia

India UBS Publishers' Distributors Ltd, POB 7015, 5 Apsari Road, New Delhi 110002

Japan Maruzen Co Ltd, POB 5050, Tokyo International 100-31

British Library Cataloguing in Publication Data
The World of Learning 1984–85
1. Learned institutions and societies
060 AS2
ISBN 0-946653-01-1
ISSN 0084-2117

Library of Congress Catalog Card Number 47-30172

### **FOREWORD**

We have once again tried to ensure that we include the latest possible information concerning entries in THE WORLD OF LEARNING. Every year a folder containing the previous year's proof is sent to each entry; continuous research in the world press and educational journals, as well as contact with official sources all over the world, supplements this method of revision. New entries have been added throughout the book, including about 30 universities. Existing entries have been expanded, especially in the chapters on Czechoslovakia, France, Poland and Viet-Nam. We welcome information and suggestions from users of the book, concerning either existing entries or possible new material.

We are always grateful to those individuals and organizations who help us to bring our information up to date with their prompt replies. We particularly emphasize the necessity for revised entries to be returned to us without delay, since important material may otherwise be held over until a later edition. Only by maintaining a strict timetable can the regular production of such a large work as THE WORLD OF LEARNING be assured.

In co-operation with IFLA we invite all institutions in the book to indicate by the sign † those of their periodical publications which are available for exchange. We ask readers who are interested in the exchange of publications to communicate directly with the institution concerned, and not with us.

We should like to point out that in the sections on Universities and Colleges our classification usually follows the practice of the country concerned. This in no way implies any official evaluation on our part. We suggest that readers who are interested in the matter of equivalences of institutions, degrees or diplomas, should correspond directly with the institution concerned, or with the national or international bodies set up for this purpose.

November 1984

# **ABBREVIATIONS**

AAAS	American Association for the Advancement	Cmdr	Commander
AAAS	of Science	Comm.	Commission
Acad.	Academy; Academician	Commr	Commissioner
ACLS	American Council of Learned Societies	Conf.	Conference
ACT	Australian Capital Territory	Conn.	Connecticut
Admin.	Administrative, Administration	Corpn	Corporation
AFRC	Agricultural and Food Research Council	Corresp.	Correspondent, Corresponding
AIA	American Institute of Architects	CP	Case postale; Caixa postal
AIChE	American Institute of Chemical Engineers	Cr	Contador
Ala Alta	Alabama Alberta	CSIRO ,	Commonwealth Scientific and Industrial Research Association
AP	Andhra Pradesh	CSSF	Confédération des Sociétés Scientifiques
Ariz.	Arizona		Françaises
Ark.	Arkansas	CTFT	Centre Technique Forestier Tropical
ASCE	American Society of Civil Engineers	Cttee	Committee
Assen	Association		
Assoc.	Associate		A CONTRACTOR AND A STATE OF THE PARTY OF THE
Asst	Assistant	DC	District of Columbia
ATC	Art Teacher's Certificate	Del.	Delegate, delegation
Atty	Attorney	Dela.	Delaware
AUPELF	Association des Universités Partiellement	Dept	Department
	ou Entièrement de Langue Française	DES	Department of Education and Science
Avv.	Avvocato (Advocate)	Dir	Director
		Dr	Doctor
BA	Bachelor of Arts	DSIR	Department of Scientific and Industrial
BC	British Columbia		Research
BILD	Bureau International de Liaison et de	E	East; Eastern
BILD	Documentation	ECOSOC	Economic and Social Council (UN)
Bldg	Building	ECSC .	European Coal and Steel Community
Blvd	Boulevard	EEC	European Economic Community
BMA	British Medical Association	ENEA	Comitato Nazionale per la ricerca e lo
Br. BRGM	Branch Bureau de Recherches Géologiques et	ENEA	sviluppo dell'Energia Nucleare e delle Energie Alternative
Bro.	Minières Brother	ESCAP	Economic and Social Commission for Asia and the Pacific
BSc	Bachelor of Science	ESRC	Economic and Social Research Council
Disc	Dataletor of Science	Est.	Established
		ETH	Eidgenössische Technische Hochschule
c.	circa (approximately)	Exec.	Executive
CAE	College of Advanced Education		
Calif.	California	f.	founded
CEA	Commissariat à l'Energie Atomique	FAO	Food and Agriculture Organization
CERN	European Organization for Nuclear Research	Fed.	Federation, Federal
Chair.	Chairman	Ga	Georgia
CNAA	Council for National Academic Awards	Gen.	Ceneral
CNR	Consiglio Nazionale delle Ricerche	GERDAT	Groupement d'Etudes et de Recherches
CNRS	Centre National de la Recherche Scientifique	*	pour le Développement de l'Agronomie Tropicale
Co	Company; County	Gov.	Governor
Colo	Colorado	Govt	Government

#### ABBREVIATIONS

HQ	Headquarters	IUPAC	International Union of Pure and Applied Chemistry
HE HM	His Eminence; His (Her) Excellency His (Her) Majesty	IUPAP	International Union of Pure and Applied
HND	Higher National Diploma	HIDHAD	Physics
Hon.	Honourable; Honorary	IUPHAR	International Union of Pharmacology
HRH	His (Her) Royal Highness	IUPS	International Union of Physiological Sciences
Ia	Iowa .	<b>IUTAM</b>	International Union of Theoretical and
IAEA	International Atomic Energy Agency		Applied Mechanics
IAU	International Astronomical Union	= y	
IBE	International Bureau of Education	, N	Jalan (Indonesia, Malaysia)
ICAR	Indian Council of Agricultural Research		
ICPHS	International Council for Philosophy and	Kan.	Kansas
	Humanistic Studies	Ky	Kentucky
ICSU	International Council of Scientific Unions	¥	Tautatana
Ida.	Idaho	La	Louisiana
<b>IEMVT</b>	Institut d'Elevage et de Médecine		an .
	Vétérinaire des Pays Tropicaux	m.	million
IFAN	Institut Fondamental d'Afrique Noire	MA	Master of Arts
IFLA	International Federation of Library	MAFF	Ministry of Agriculture, Fisheries and Food
	Associations and Institutions	Man.	Manager, Managing; Manitoba
IGU	International Geographical Union	Mass	Massachusetts
IICA	Instituto Interamericano de Cooperación	Md	Maryland
*	para la Agricultura	Me	Maine
III.	Illinois	Mem(s)	Member(s)
ILO	International Labour Organisation	Mgr	Monseigneur; Monsignor; Magister
<b>IMU</b>	International Mathematical Union		(Master's degree)
Inc.	Incorporated	Mich.	Michigan
Ind.	Indiana; Independent	Min.	Minister; Ministry
INFN	Istituto Nazionale di Fisica Nucleare	Minn.	Minnesota
INRA	Institut National de la Recherche	Miss.	Mississippi
	Agronomique	MIT	Massachusetts Institute of Technology
Instn	Institution	Mo.	Missouri
IRAT	Institut de Recherches Agronomiques	Mont.	Montana
	Tropicales et des Cultures Vivrières	MRC	Medical Research Council
IRCC	Institut de Recherches du Café, du Cacao	MS	Master of Science
	et autres plantes stimulantes	MSc	Master of Science
IRCT	Institut de Recherches du Coton et des		
	Textiles Exotiques	N	North; Northern
IRFA	Institut de Recherches sur les Fruits et	NASA ·	National Aeronautics and Space
IDHO	Agrumes	NASA	Administration
IRHO	Institut de Recherches pour les Huiles et Oléagineux	Nat.	National
ISME	International Society for Music Education	NB	New Brunswick
IUB	International Union of Biochemistry	NC	North Carolina
IUBS	International Union of Biological Sciences	ND	North Dakota
IUCr	International Union of Crystallography	NDD	National Diploma in Dairying
		NERC	Natural Environment Research Council
IUGG	International Union of Geodesy and Geophysics	Neb.	Nebraska
IUGS	International Union of Geological Sciences		
and the second second second	International Union of the History and	Nev.	Nevada
IUHPS	Philosophy of Science	NH	New Hampshire
IUIS	International Union of Immunological	NJ	New Jersey
1016	Societies Societies	NM	New Mexico
IUMS	International Union of Microbiological	NS	Nova Scotia
,	Societies	NSW .	New South Wales
IUNS	International Union of Nutritional Sciences	NUI	National University of Ireland
<b>IUPAB</b>	International Union of Pure and Applied	NY	New York
	Biophysics	NZ	New Zealand

#### ABBREVIATIONS

0.	Ohio	S	South; Southern
OAS	Organization of American States	SA	South Africa(n); South Australia
OECD	Organization for Economic Co-operation	SC	South Carolina
	and Development	S Dak.	South Dakota
OFS	Orange Free State	SDI	Selective Dissemination of Information
Okla	Oklahoma	Sec.	Secretary
On.	Onorevole (Italian)	SERC	Science and Engineering Research Council
ONERA	Office National d'Etudes et de Recherches Aérospatiales	Soc.	Society
Ont.	Ontario	SRR	Socialist Republic of Romania
Ore.	Oregon	SSR	Soviet Socialist Republic
ORSTOM	Office de la Recherche Scientifique et	Tenn.	Tennessee
OROTOM	Technique Outre-Mer	Tex.	Texas
OU	Open University	T CA.	201140
		UGC	University Grants Committee
		UK .	United Kingdom
Pa	Pennsylvania	UN	United Nations
PCSIR	Pakistan Council of Scientific and	UNDP	United Nations Development Programme
PEI	Industrial Research Prince Edward Island	UNESCO	United Nations Educational, Scientific and Cultural Organization
PEN	Poets, Playwrights, Essayists, Editors and	UNICEF	United Nations International Children's
ert er stor ov o	Novelists (Club)	UNICEF	Emergency Fund
PhD	Doctor of Philosophy	Univ.	University
PMB	Private Mail Bag	UNWRA	United Nations Relief and Works Agency
POB	Post Office Box	UP	Uttar Pradesh (United Provinces)
PQ	Province of Quebec	URSI	Union Radio-Scientifique Internationale
Pres.	President	USA	United States of America
Prof.	Professor	USIS	United States Information Service
Publ(s)	Publication(s)	USSR	Union of Soviet Socialist Republics
		Va	Virginia
q.v.	quod vide (which see)	Vols	Volumes
		Vt	Vermont
Rep.	Representative; Represented	W	West; Western
retd	retired	WA	Western Australia
Rev.	Reverend	Wash.	Washington (State)
RI	Rhode Island	Wis.	Wisconsin
RIBA	Royal Institute of British Architects	W Va	West Virginia
RSFSR	Russian Soviet Federative Socialist Republic	Wyo.	Wyoming
Rt Hon.	Right Honourable	†	indicates a periodical title available for
Rt Rev.	Right Reverend	w	exchange

# INTERNATIONAL SECTION

United Nations Educational, Scientific and Cultural Organization (UNESCO)	page 1
International Institute for Educational Planning (IIEP)	4
International Bureau of Education (IBE)	4
United Nations University	4
International Council of Scientific Unions	5
International Council for Philosophy and Humanistic Studies	7
International Social Science Council	9
International Association of Universities (IAU)	10
Other International Organizations	
Agriculture	11
Arts	13
Bibliography	15
Economics, Political Science and Sociology	16
Education	19
Engineering and Technology	23
Law	26
Medicine and Public Health	27
Music	32
Science	22

# **CONTENTS**

Foreword	page v	Cyprus	page 3	31:
Abbreviations	xi	Czechoslovakia		314
International Section	xv			
Afghanistan	39	Denmark		33€
Albania	40	Faeroe Islands		348
Algeria	43	Dominican Republic		349
Angola	46	Ecuador		352
Argentina	47	Egypt		357
Australia	65	El Salvador		
Austria	93			364
		Ethiopia		366
Bahamas	113	Fiji	:	368
Bahrain	114	Finland		369
Bangladesh	115	France		382
Barbados	119	French Overseas Departments		302 437
Belgium	120	French Overseas Territories		438
Belize	140	Gabon		439
Benin	141			439 440
Bolivia	142	German Democratic Republic		
Botswana	145	Germany, Federal Republic		450
Brazil	146	Ghana		<b>54</b> 0
Brunei	176	Great Britain (see United Kingdom)		- 40
Bulgaria	177	Greece		543
Burkina Faso (see Upper Volta)		Grenada		552
Burma	189	Guatemala		553
Burundi	191	Guinea		556
		Guyana		557
Cameroon	192	Haiti	5	558
Canada	193	Honduras		559
Central African Republic	267	Hungary		5 <b>6</b> 0
Chad	268		7	
Chile	269	Iceland	;	581
China, People's Republic	278	India		583
China (Taiwan)	288	Indonesia		624
Colombia	294	Iran	(	636
Congo	305	Iraq	(	640
Costa Rica	306	Ireland	(	644
Cuba	309	Israel	(	651

#### CONTENTS

Italy	page	666	Pakistan	page 913
Ivory Coast		703	Panama	923
			Papua New Guinea	925
Jamaica		705	Paraguay	927
Japan	•	707	Peru	929
Jordan		778	Philippines	938
Kenya		781	Poland	950.
Kiribati		784	Portugal	990
Korea, Democratic People's Republic		784 785	Macau	999
Korea, Republic		788	Puerto Rico	1000
Kuwait		801		
Kuwait		001	Qatar	1004
Laos		803		
Lebanon		804	Romania	1005
Lesotho		808	Rwanda	1027
Liberia		809	Saudi Arabia	1000
Libya		811		1028
Luxembourg		813	Senegal	1031
			Sierra Leone	1033
Madagascar		814	Singapore	1034
Malawi		815	Solomon Islands	1037
Malaysia		817	Somalia	1038
Mali		822	South Africa	1039
Malta		823	Spain	1066
Mauritania		824	Sri Lanka	1102
Mauritius		825	Sudan	1107
Mexico		826	Suriname	1109
Monaco .		846	Swaziland	1110
Mongolian People's Republic		847	Sweden	1111
Morocco		849	Switzerland	1129
Mozambique		852	Syria	1150
•			Teimen (see Chine (Teimen))	
Namibia (South West Africa)		853	Taiwan (see China (Taiwan) ) Tanzania	1152
Nepal		854		
Netherlands		855	Thailand	1155
Netherlands Antilles		871	Togo	1163
New Zealand		872	Trinidad and Tobago	1164
Nicaragua	8	881	Tunisia	1165
Niger		883	Turkey	1167
Nigeria		884	Hands	1170
Norway		899	Uganda	1179
	5. "	010	Union of Soviet Socialist Republics	1181
Oman	4	912	United Arab Emirates	1238

#### CONTENTS

United Kingdom	page	1239	Venezuela	page	1688
Northern Ireland		1358	Viet-Nam	1 0	1698
United Kingdom Overseas		1361			1000
Bermuda		1361	Western Samoa		1702
Gibraltar		1361			
Hong Kong		1361	Yemen Arab Republic		1703
United States of America		1364	Yemen, People's Democratic Republic		1704
United States of America External			Yugoslavia		1705
Territories		1677			
Upper Volta		1678	Zaire		1733
Uruguay		1679	Zambia		1735
			Zimbabwe		1738
Vatican City State		1682	Index of Institutions		1743

# INTERNATIONAL

# UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)

7 place de Fontenoy, 75700 Paris Telephone: 577-16-10 Telex: 270002, 204461

UNESCO was established in 1946 'for the purpose of advancing, through the educational, scientific and cultural relations of the peoples of the world, the objectives of international peace and the common welfare of mankind'.

#### **Functions**

UNESCO's activities, which take three main forms as outlined below, are funded through a regular budget provided by member states and also through other sources, particularly the UNDP.

International Intellectual Co-operation

UNESCO assists the interchange of experience, knowledge and ideas through a world network of specialists. Apart from the work of its professional staff, UNESCO co-oper-ates regularly with the national associations and international federations of scientists, artists, writers and educators, some of which it helped to establish.

UNESCO convenes conferences and meetings, and co-ordinates international scientific efforts; it helps to standardize procedures of documentation and provides clearing house services; it offers fellowships; and it publishes a wide range of specialized works, including source books and works of reference.

UNESCO promotes various international agreements, including the International Copyright Convention and the World Cultural and National Heritage Convention, which member states are invited to accept.

Operational Assistance

UNESCO has established missions which advise governments, particularly in the advise governments, particularly in the developing member countries, in the planning of projects; and it appoints experts to assist in carrying them out. The projects are concerned with the teaching of functional literacy to workers in development undertakings; teacher training; establishing of libraries and documentation centres; provision of training for journalists, radio television of training for journalists, radio, television and film workers; improvement of scientific and technical education; training of planners in cultural development; and the international exchange of persons and information.

Promotion of Peace

UNESCO organizes various research efforts on racial problems, and is particularly con-cerned with prevention of discrimination in education, and improving access for women to education. It also promotes studies and research on conflicts and peace, violence

and obstacles to disarmament, and the role of international law and organizations in building peace. It is stressed that human rights, peace and disarmament cannot be dealt with separately, as the observance of human rights is a prerequisite to peace and vice versa.

#### Member States

(August 1984)

Afghanistan Albania Algeria Angola Antigua and Barbuda Argentina Australia Austria Bahamas Bahrain Bangladesh

Barbados Belgium Belize Benin Bhutan Bolivia

Botswana Brazil Bulgaria Burma Burundi

Byelorussian SSR Cameroon

Canada Cape Verde Central African Republic

Chad

Chile

China, People's Republic Colombia

Comoros

Congo People's Republic

Costa Rica Cuba Cyprus Czechoslovakia Denmark

Dominica Dominican Republic

Ecuador Egypt El Salvador Equatorial Guinea Ethiopia

Finland France Gabon Gambia

German Democratic Republic Germany, Federal Republic

Ghana Greece Grenada Guatemala Guinea Guinea-Bissau Guyana Haiti Honduras

Hungary Iceland India Indonesia

Iran Iraq Ireland Israel Italy Ivory Coast Jamaica

Japan Jordan Kampuchea Kenya

Korea, Democratic People's Republic

Korea, Republic Kuwait

Laos Lebanon Lesotho Liberia Libya Luxembourg Madagascar Malawi Malaysia

Maldives Mali Malta Mauritania Mauritius Mexico Monaco

Mongolian People's Republic

Morocco Mozambique Namibia Nepal Netherlands New Zealand Nicaragua Niger Nigeria. Norway Oman

Pakistan Panama Papua New Guinea

Paraguay Peru Philippines Poland Portugal Qatar Romania Rwanda

St Christopher and Nevis

St Vincent and the Grenadines

#### INTERNATIONAL

San Marino São Tomé and Príncipe Saudi Arabia Senegal Seychelles Sierra Leone Singapore Somalia Spain Sri Lanka Sudan Suriname Swaziland Sweden Switzerland Syrian Arab Republic Tanzania Thailand Togo Tonga Trinidad and Tobago Tunisia Turkey Uganda Ukrainian SSR USSR United Arab Emirates United Kingdom United States of America Upper Volta Uruguay Venezuela Viet-Nam Yemen Arab Republic Yemen, People's Democratic Republic Yugoslavia Zaire Zambia Zimbabwe Associate Members: British Eastern Caribbean Group

# Organization

#### GENERAL CONFERENCE

The supreme governing body of the Organization. Meets in ordinary session once in two years and is composed of representatives of the member states. 22nd session: Paris, 1983.

President: SAÏD M. TELL (Jordan).

British Virgin Islands

Netherlands Antilles

#### EXECUTIVE BOARD

Consists of 45 members. Prepares the programme to be submitted to the Conference and supervises its execution. Meets twice or sometimes three times a year.

#### SECRETARIAT

Director-General: AMADOU MAHTAR M'BOW (Senegal).

Deputy Director-General: FEDERICO MAYOR (Spain).

Director of the Executive Office: CHIKH BEKRI (Algeria).

The Director-General has an international staff of some 3,000 civil servants. Of the professional staff (specialists in various disciplines and administrators), about two-thirds are away from headquarters on technical assistance missions to member states.

Assistant Directors-General:

Studies and Programming: J. KNAPP (France).

Education: SIOMA TANGUIANE (USSR).

Natural Sciences and their Application to Development: ABDUL-RAZZAK KADDOURA (Syria).

Social Sciences and their Applications: RODOLFO STAVENHAGEN (Mexico).

Culture and Communication: MAKAMINAN MAKAGIANSAR (Indonesia).

Co-operation for Development and External Relations: DRAGOLJUB NAJMAN (Yugoslavia).

Programme Support: HENRI LOPES (Congo).

#### CO-OPERATING BODIES

In accordance with UNESCO's constitution, national commissions have been set up in most member states. These help to integrate work within the member states and the work of UNESCO.

#### **UNESCO LIAISON OFFICES**

Office for Liaison with United Nations: Room 2401, UN Bldg, 42nd St at First Ave, New York, NY 10017, USA.

UNESCO Liaison Office in Geneva: Bureau Bocage 4, Palais des Nations, CH-1211 Geneva, Switzerland.

UNESCO Liaison Office in Washington: 918 16th St, NW, Suite 201, Washington, DC 20006, USA.

UNESCO Liaison Office for Ethiopia and with the Economic Commission for Africa (ECA) and the Organization of African Unity (OAU): POB 1177, Addis Ababa, Ethiopia.

UNESCO Liaison Office for the Safeguarding of Venice: Palazzo Reale, Piazza San Marco 63, 30124 Venice, Italy.

#### UNESCO EDUCATION OFFICES

Regional Office for Education in Latin America and the Caribbean: POB 3187, Santiago, Chile.

Regional Office for Education in Asia (including the Asian Centre for Educational Innovation for Development): POB 1425, Bangkok 11, Thailand.

Regional Office for Education in Africa: BP 3311, Dakar, Senegal.

Regional Office for Education in the Arab States: c/o UNESCO, 7 place de Fontenoy, 75700 Paris, France.

Regional Office for Education in the South Pacific: Apia, Western Samoa.

Arab States Regional Centre for Functional Literacy in Rural Areas (ASFEC): Sirs-El-Layan, Menoufia, Egypt.

European Centre for Higher Education (CEPES): 39 rue Stirbei, Voda, Bucharest, Romania.

International Bureau of Education (see below).

UNESCO Regional Centre for Higher Education in Latin America and the Caribbean (CRESALC): Altos de Sebucan, Avda Los Chorros/Cruce, Calle Acueducto, Edificio Asovincar, El Sebucan, Apdo 62090, Caracas 106, Venezuela.

International Institute for Adult Literacy Methods (IIALM): POB 1555, Teheran, Iran.

International Institute for Educational Planning (IIEP) (see below).

# UNESCO SCIENCE AND TECHNOLOGY OFFICES

Regional Office for Science and Technology for Africa: POB 30592, Nairobi, Kenya. Regional Office for Science and Technology for Latin America and the Caribbean: 1320 Bulevar Artigas, Apdo de Correos 859, Montevideo, Uruguay.

Regional Office for Science and Technology for the Arab States: c/o UNESCO Secretariat, 7 place de Fontenoy, 75700 Paris, France.

Regional Office for Science and Technology for South and Central Asia: UNESCO House, 17 Jor Bagh, New Delhi 110003, India.

Regional Office for Science and Technology for South-East Asia: UN Bldg (2nd Floor), Jl. Thamrin 14, Tromol Pos 273/JKT, Jakarta, Indonesia.

## UNESCO CULTURE AND COMMUNICATION OFFICES

Regional Office for Culture in Latin America and the Caribbean: Calzada 551, esq. a D, Vedado, Apdo 4158, Havana, Cuba.

Regional Office for Book Development in Asia and the Pacific: POB 8950, Karachi, Pakistan.

Regional Centre for Book Development in Africa South of the Sahara (CREPLA): POB 1646, Yaoundé, Cameroon.

Sub-Regional Adviser for Communication in Latin America: Edificio Francisco de Orellana, Oficina 701, Avda Orellana 1791 y 10 de Agosto, Quito, Ecuador.

Sub-Regional Adviser for Communication in the Caribbean: Kingston, Jamaica.

#### **Activities**

About 200 issues of periodicals and 100 new publications are produced annually, and about 80 meetings and conferences and 30 seminars are held; close relations are maintained with some 400 non-governmental organizations, some carrying out projects for UNESCO programmes.

#### **EDUCATION**

UNESCO has an overall policy of regarding education as a lifelong process. As an example, one implication is the increasing priority given to pre-primary training. This approach has been the guideline for many of the projects recently planned. 'Education for All', 'The Formulation and Application of Educational Policies' and 'Education, Training and Society' are three of the major programmes for 1984–85.

Each year expert missions are sent to member states on request to advise on all matters concerning education. They also help with programmes for training abroad, and UNESCO provides study fellowships; in these forms of assistance priority is given to the rural regions of developing member countries. UNESCO is collaborating with the National Literacy Plan in Honduras, and the National Literacy Programme in Suriname.

# NATURAL SCIENCES AND TECHNOLOGY

While the main emphasis in UNESCO's work in science and technology is on harnessing these to development, and above all on meeting the needs of developing countries, the Organization is also active in promoting and fostering collaborative

international projects among the highly industrialized countries. UNESCO's activities can be divided into three levels: international, regional and sub-regional, and national

national. At the international level, UNESCO has over the years set up various forms of intergovernmental co-operation concerned with the environmental sciences and research on natural resources. Examples of these are the Man and Biosphere Programme (MAB) which at present has 1,000 projects under way, using an interdisciplinary approach to solving practical problems of environmental resource management in such areas as arid lands, humid tropical zones, mountain ecosystems, urban systems, etc.; the Interna-tional Geological Correlation Programme (IGCP), run jointly with the International Union of Geological Sciences (q.v.); the International Hydrological Programme (IHP) dealing with the scientific aspects of water resources assessment and manage-ment; the Intergovernmental Oceanographic Commission (q.v.) which promotes scientific investigation into the nature and resources of the oceans through the concerted action of its member states; the International Lithosphere Programme was set up in 1981 by ICSU, IUGG and IUGS, to succeed the International Geodynamics Programme. Another programme, UNIS-, ensures worldwide co-operation in the field of scientific and technological information. In the basic sciences, UNESCO helps promote international and regional co-operation in close collaboration with the world scientific communities, with which it maintains close co-operative links particularly through its support to ICSU and member unions. Major disciplinary programmes are promoted in the fields of physics (including support to the International Centre for Theoretical Physics), the chemical sciences, life sciences, including applied microbiology, mathematics, informatics and new sources of energy. An International Research and Training Centre on Erosion and Sedimentation is being set up in China.

At the regional and sub-regional level, UNESCO develops co-operative scientific and technological research programmes through organization and support of scientific meeting and contracts with research institutions, and the establishment or strengthening of co-operative networks. Periodically, regional ministerial conferences are organized on science and technology policy and on the application of science and technology to development. More specialized regional and sub-regional meet-

ings are also organized.

At the national level, UNESCO assists member states, upon request, in the field of policy-making and planning in the field of science and technology generally, and by organizing training and research programmes in basic sciences, engineering sciences and environmental sciences, particularly work relevant to development, such as projects concerning the use of small-scale energy sources for tural and dispersed population.

#### SOCIAL AND HUMAN SCIENCES

The social sciences programme is expanding so as to ensure the development of the social sciences throughout the world by strengthening national and regional institutions, the conceptual development of the social sciences, training, the exchange and diffusion of information, and co-operation with

international non-governmental organizations. Furthermore, the activities are aimed at promoting, at the methodological level, the applicability of the social sciences, in particular by process of socio-economic analysis.

The activities concerning Human Rights and Peace include two major programmes: the elimination of prejudice, intolerance, racism and apartheid; and a programme for peace, international understanding, human rights and the rights of peoples.

Activities related to women in societies correspond to the three objectives set for the UN Decade for Women, namely: promotion of equality, their participation in development and their contribution to peace. Youth programmes are also under way in co-operation with member states and international non-governmental organizations.

#### CULTURE

A programme begun in 1973 seeks to speed the change in the role of culture, from the activity of an élite in society to a necessity claimed by all. This involves the training of specialists in cultural development, arts administration and the organization of cultural events. In 1984 UNESCO supported the commemoration of the 800th anniversary of the birth of Sheikh Musli Al-Din Saadi Shirazi, the Iranian thinker, poet and writer; and the commemoration of the 50th anniversary of the death of Augusto César Sandino, the Nicaraguan leader and liberator.

The Secretariat runs studies on the situation of the artist in society, various problems of artistic creation and various new possibilities in creative work which have been made by new technology. To widen the appreciation of painting, UNESCO publishes catalogues of colour reproductions and organizes travelling exhibitions of reproductions of famous paintings.

In another programme, translations of important literary works of the world are

produced.

An established programme investigates cultures of Asia, Latin America, Europe, Africa and the Arab world. A group of experts is working on an eight-volume General History of Africa, the fourth of which was published in 1984. There is also a tenyear programme to promote the study of African languages and oral traditions and to encourage the teaching of these subjects throughout the world.

There are studies on problems involved in international exchanges of works of art, the preservation of historic quarters of cities, and protection of works of art from theft; UNESCO is also concerned with the return of cultural property to its country of

origin.

UNESCO supports efforts to preserve architectural monuments. The project to save Borobudur (Indonesia) was successfully completed in 1983. There is a plan to save the archaeological site of Tyre, and to transfer to safety a group of temples that are threatened by rising water levels at Philae in Egypt; there are international campaigns to save the Parthenon, Greece, Moenjodaro, Pakistan, and several buildings in Venice, Italy.

As part of a programme aiming to stimulate the production and reading of books, an international committee of publishers, authors, librarians and booksellers has been set up.

COMMUNICATION

UNESCO's programme aims at fostering a free flow and a wider and better balanced exchange of information among individuals, communities and countries, and focuses on the role of the mass media in furthering international understanding and peace. The international movement of persons and circulation of materials are promoted through measures for the reduction of obstacles of a legislative, administrative or economic nature.

Assistance is provided to member states in the formulation of national communication policies, and a series of regional intergovernmental conferences on this subject has been organized since 1976. UNESCO also promotes research in the field of communication, and for this purpose has been instrumental in setting up an International Network of Documentation Centres on Communication Research and Policies.

UNESCO co-operates with member states, particularly in the developing countries, in strengthening and expanding their communication systems, and for this purpose executes a number of programmes both in individual countries and at the regional and sub-regional levels, to provide advisory services and help advance professional training in communication skills.

In 1980 a 'New World Information and Communication Order' (NWICO) (including plans for an international code of journalistic ethics and for the 'licensing' of journalists) was approved, in spite of objections from the United Kingdom and USA. As a result, the Intergovernmental Programme for the Development of Communication was established. 'Communication in the Service of Man' is a major programme for 1984-85.

# BUREAU OF STUDIES AND PROGRAMMING

INFORMATION SYSTEMS AND SERVICES

UNESCO's General Information Programme is an intergovernmental pro-gramme concerned with the development and promotion of information systems and services in the fields of scientific and techinformation, nological documentation. libraries and archives at the national, regional and international levels. Its activities, including those directed to the development of UNISIST, fall into the following categories: promotion of the formulation of information policies and plans; promotion and dissemination of methods, norms and standards for information handling; contribution to the development of information infrastructure; contribution to the development of specialized information systems: promotion of the training and education of information specialists and users

Since the Intergovernmental Conference on Scientific and Technological Information for Development (UNISIST II) and the United Nations Conference on Science and Technology for Development (UNCSTD), held in 1979, the General Information Programme has decided to attach particular importance to socio-economic information and to the special needs of developing countries. Its programme will increasingly favour a user-oriented approach, and specifically, those users taking part in the development process; the programme will endeavour to facilitate the member states' choice, use, and adaptation of advanced information and communication technology.

#### **Finance**

#### UNESCO REGULAR BUDGET 1984-85-US \$)

General Policy and Direction	
General Conference	5,098,000
Executive Board	620,900
Directorate	29,600
Services of the Directorate	13,168,000
Participation in the joint	
machinery of the UN	01201121010
system	863,800
Programme Operations and S	ervices
Major Programmes:	
Reflection on World Prob-	
lems and Future-	2 722 222
oriented Studies	2,729,200
Education for All	31,130,700
Communication in the Ser-	10 150 000
vice of Man	16,156,600
Formulation and Applica-	
tion of Educational	05 540 000
Policies	35,546,300
Education, Training and	17 100 000
Society	17,106,000
The Sciences and their	
Application to	20 400 700
Development	30,482,700
Information Systems and Access to Knowledge	10 104 100
Driveinles Methods and	12,194,100
Principles, Methods and	
Strategies of Action for	11.059.900
Development Science, Technology and	11,052,200
Society	7,586,200
The Human Environment	7,550,200
and Terrestrial and Mar-	13. 7
ine Resources	31,176,700
Culture and the Future	25,554,300
The Elimination of Preju-	20,004,000
dice, Intolerance, Racism	
and Apartheid	1,629,800
Peace, International	1,020,000
Understanding Human	
Understanding, Human Rights and the Rights of	
Peoples	5,540,300
General Programme	0,040,000
Activities	27,185,100
Programme support	54,291,600
General administrative	- , , ,
services	30,916,000
Common services	30,747,800
Appropriation reserve	30,747,800 29,387,000
Capital expenditure	4,845,000
Provision for currency	,,
fluctuation	46,145,000
	384,893,000
Less amount to be absorbed	
in the execution of the pro-	
gramme within the limits	
of the approved total	/*
budget	10,483,000
buaget	man grand project
Total	374,410,000

#### PUBLICATIONS (in English, French and Spanish unless otherwise indicated)

UNESCO Courier: monthly illustrated journal devoted to the general interests of UNESCO; published in 27 languages.

UNESCO News: monthly, giving official information, records of meetings, reports, and articles on UNESCO's programme, etc.; English, French, Arabic and Spanish.

Copyright Bulletin: quarterly review of special studies and documentation on the legislation in different countries, and on UNESCO's work on behalf of the harmon-

ization of the various copyright laws; English, French, Spanish, Russian.

Museum: quarterly international review of museographical techniques intended for museum specialists; English and French.

Impact of Science on Society: quarterly reports on science as a major force for social change; English, French, Spanish, Russian, Arabic, Chinese.

International Social Science Journal: quarterly journal.

Nature and Resources: quarterly review on environment and conservation; official bulletin of the Man and Biosphere Programme, the International Hydrological Programme and the International Geological Correlation Programme; English, French, Spanish, Russian.

Prospects: quarterly review on educational planning; English, French, Spanish, Russian, Arabic.

Cultures: quarterly, exploring the concept and definition of the word culture, its development and the influence of cross-cultural contacts. Also examines varieties of cultural creativity, the emergence and role of cultural institutions and the problems involved in studying culture; English, French, Spanish, Russian, Arabic.

International Marine Science Newsletter: quarterly, issued on behalf of the Intergovernmental Oceanographic Commission and UN Specialized Agencies with interests in the marine field.

#### INTERNATIONAL INSTITUTE FOR EDUCATIONAL PLANNING (IIEP)

7-9 rue Eugène Delacroix. 75116 Paris, France

Telephone: 504-28-22 Telex: 620074

Established by UNESCO in 1963 to serve as a world centre for advanced training and research in educational planning. Its purpose is to help all member states of UNESCO in their social and economic development efforts, by enlarging the fund of knowledge about educational planning and the supply of competent experts in this

Legally and administratively a part of UNESCO, the Institute enjoys intellectual autonomy, and its policies and programme are controlled by its own Governing Board, under special statutes voted by the General Conference of UNESCO.

Chairman of Governing Board: Prof. MALCOLM S. ADISESHIAH.

Director: SYLVAIN LOURIÉ.

A catalogue of publications, listing over 400 titles, is available on request.

Budget 1984: US \$3,000,000.

# INTERNATIONAL BUREAU OF EDUCATION (IBE)

CP 199, 1211 Geneva 20, Switzerland Telephone: 98-14-55 Telex: 033204461

Founded in 1925, the IBE became an intergovernmental organization in July 1929 and

was incorporated into UNESCO in January

#### COUNCIL

The Council of the IBE is composed of representatives of 24 member states designated by the General Conference of UNESCO.

Director: (vacant).

#### **FUNCTIONS**

International Conference on Education. 39th session, 1984: on universalization and renewal of primary education as an appropriate introduction to science and technology.

International Education Library: 92,000 vols; some 1,200 journals received regularly; 220,000 research reports on microfiche.

International Educational Reporting Service (IERS): provides information on educational innovations.

International Exhibition of Education.

#### BUDGET

Financed from the budget of UNESCO 1984-85: US \$4,390,000.

#### **PUBLICATIONS**

International Yearbook of Education, Vol. XXXV 1983.

Studies and Surveys in Comparative Education, series.

Educational Sciences, series.

Experiments and Innovations in Education, series.

Ibedata, reference series (terminologies and directories).

Educational Documentation and Information, quarterly bibliographical bulletin.

Co-operative Educational Abstracting Service, periodical issues of abstracts of educational policy documents.

IBEDOC information, quarterly newsletter on documentation.

Awareness List, quarterly bibliography on educational innovation. Issued by International Educational Reporting Service.

Innovation, quarterly newsletter issued by International Educational Reporting Service.

# UNITED NATIONS

Toho Seimei Building, 15-1, Shibuya 2chome, Shibwya-ku, Tokyo 150, Japan Telephone: (81) (3) 499-2811 Telex: 25442

The University is sponsored jointly by UN and UNESCO. It is an autonomous institution within the UN framework, guaranteed acaderaic freedom by a charter approved by the General Assembly in 1973. Work began in September 1975, financed from an Endowment Fund and operational funds to which many countries have contributed. The University is not traditional in the sense of having students or awarding degrees, but works through networks of collaborating institutions and individuals. Initially, the University's activities were concentrated in the areas of hunger, hundan and social development, and use and management of natural resources. The University now has 32 Associated Institutions and

collaborates with many other institutions of higher learning, through which it carries out its work in more than 60 countries. In 1984 the UNU established in Helsinki the World Institute for Development Economics Research (WIDER), which is the first in the new worldwide network of research and training centres to be set up by the University. In 1983 106 UNU Fellowships were awarded.

At present the University works in the areas of Peace, Security, Conflict Resolu-

tion, and Global Transformation; Global Economy; Hunger, Poverty, Resources and the Environment; Human and Social Development and Co-existence of Peoples, Cultures and Social Systems; Science and Technology and their Social and Ethical Implications. There are 3 Divisions to plan and co-ordinate research, postgraduate training and knowledge-dissemination activities: Development Studies (country-specific research); Regional and Global Studies (international and cross-cultural

dimensions); Global Learning (dissemination and use of knowledge).

Rector: SOEDJATMOKO.

Vice-Rectors: ALEXANDER A. KWAPONG (Institutional Planning and Resource Development), EDWARD PLOMAN (Global Learning), MIGUEL URRUTIA (Development Studies), KINHIDE MUSHAKOJI (Regional and Global Studies).

Chairman of Council: Sir JOHN KENDREW.

# INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS

International Council of Scientific Unions (Conseil international des unions scientifiques): 51 blvd de Montmorency, 75016 Paris, France; tel. 525-03-29; telex ICSU 630553 F; the ICSU was founded in 1931, succeeding the International Research Council founded in 1919, to co-ordinate international efforts in the different branches of science and its applications; to initiate the formation of international associations or unions deemed to be useful to the progress of science; to enter into relations with the governments of the countries adhering to the Council in order to promote investigations falling within the competence of the Council. Adhering organizations represent 71 countries and 20 international unions. In December 1946 an agreement was signed between UNESCO and the ICSU recognizing the latter as the co-ordinating and representative body of international scientific unions; Pres. Sir John Kendrew, Vice-Pres. Acad. G. K. Skryabin; Sec.-Gen. L. Ernster, Treas. Prof. T. F. Malone; Exec. Sec. F. W. G. Baker; publs ICSU Year Book†, ICSU Newsletter†.

#### UNION REPRESENTATIVES

CITIOIT ILDI IL	LOUITINITAL
IAU	Prof. R. WEST
IUGG	Prof. D. LAL
URSI	Prof. W. E. GORDON
IUPAC	Prof. T. S. WEST
IUPAP	Prof. K. SIEGBAHN
IGU	Prof. W. MANSHARD
IUBS	Prof. P. FASELLA
IUHPS	Prof. W. SHEA
IUCr	Prof. N. KATO
IUTAM	Prof. D. C. DRUCKER
IMU	Prof. O. LEHTO
IUB	Prof. J. ALLENDE
IUPS	Prof. J. SCHERRER
IUGS	Prof. E. SEIBOLD
IUPAB	Prof. W. WUTHRICH
IUNS	Dr D. HOLLINGSWORTH
IUPHAR	Prof. P. G. WASER
IUIS	Prof. B. CINADER
IUMS	Prof. P. GERHARDT
<b>IUPsyS</b>	Prof. F. KLIX

#### NATIONAL REPRESENTATIVES

NATIONAL REPRESENTATIVI	es
Prof. A. A. ASHOUR	(Egypt)
Prof. J. BENARD	(France)
Sir Arnold Burgen	(UK)
Prof. J. C. I. DOOGE	(Ireland)
Prof. M. DA FROTA	(Brazil)
MOREIRA	
Dr. A. P. MITRA	(India)
Prof. D. ODHIAMBO	(Kenya)
Prof. A. PAOLETTI	(Italy)

Prof. G. SMETS Dr O. G. TANDBERG Prof. J. TIGYI Dr R. VILLEGAS Prof. I. WATANABE

(Belgium) (Sweden) (Hungary) (Venezuela) (Japan)

#### UNIONS FEDERATED TO THE ICSU

International Astronomical Union (Union astronomique internationale): 61 ave de l'Observatoire, 75014 Paris, France; f. 1919 to facilitate co-operation between the astronomers of various countries and to further the study of astronomy in all its branches; 49 affiliated countries, 5,200 individual mems; Pres. Prof. R. HANBURY BROWN (Australia); Gen. Sec. Dr R. M. WEST (Denmark); publs Transactions of the International Astronomical Union and Symposia organized by the International Astronomical Union.

International Geographical Union (IGU) (Union géographique internationale): f. 1923 to encourage the study of problems relating to geography, to promote and co-ordinate research requiring international co-operation, and to organize international congresses and commissions; 86 mem. countries; Pres. Prof. A. MABOGUNJE (Nigeria); Sec. Treas. Prof. WALTHER MANSHARD, Geographisches Institut, Werderring 4, D-7800 Freiburg, Fed. Repub. of Germany.

International Mathematical Union: Dept of Mathematics, University of Helsinki, Hallituskatu 15, SF-00100 Helsinki, Finland; tel. (358) 0-1912883; telex 124690 UNIH SF; f. 1950 by a convention of delegates of national cttees representing 22 countries which met in New York, to promote international co-operation in mathematics; to support and assist the International Congress of Mathematicians and other international scientific meetings or conferences; to encourage and support other international mathematical activities considered likely to contribute to the development of mathematical science—pure, applied, or educational; 51 mem. countries; 2 commissions: Int. Comm. on Mathematical Instruction, Comm. for Development and Exchange; Pres. Prof. J. MOSER; Vice-Pres. Prof. L. FADDEEV, J.-P. SERRE; Sec.-Gen. Prof. O. LEHTO.

International Union of Biochemistry (Union internationale de biochimie): c/o Dept of Biochemistry, Duke University, School of Medicine, POB 3711, Durham, NC 27710, USA; tel. (919) 684-5326; telex 802829 Duktelcom Durm; f. 1955 (a) to encourage the continuance of a series of

International Congresses of Biochemistry, (b) to promote international co-ordination of research, discussion and publication, (c) to organize a permanent co-operation between the societies representing biochemistry in the adherent countries, and (d) to contribute to the advancement of biochemistry in all its international aspects; 48 adhering bodies, five assoc. adhering bodies; Pres. Prof. H. G. Wood (USA); Sec.-Gen. ROBERT L. HILL (USA); Treas. Prof. K. YAGI (Japan).

International Union of Biological Sciences (Union internationale des sciences biologiques): 51 blvd de Montmorency, 75016 Paris, France; tel. 525-00-09; f. 1919 for the promotion of international co-operation in biology; 47 countries are represented; Pres. Prof. P. FASELLA (Italy); Sec.-Gen. Prof. E. S. Ayensu (Ghana/USA); Treas. Prof. C. Lévi (France); Exec. Sec. Dr T. Younes; publs Biology International—The IUBS News Magazine† (2 a year), Proceedings of the General Assemblies† (every 3 years).

International Union of Crystallography (Union internationale de cristallography) (Union internationale de cristallography): f. 1947 to promote international co-operation in crystallography; to contribute to the advancement of crystallography in all its aspects, including related topics concerning the non-crystalline states; to facilitate international standardization of methods, of units, of nomenclature and of symbols used in crystallography; and to form a focus for the relations of crystallography to other sciences; 33 mem. countries; 13 commissions; Pres. Dr J. KARLE (USA); Gen. Sec. and Treas. Prof. K. V. J. KURKI-SUONIO (Finland); Exec. Sec. Dr J. N. KING, 5 Abbey Square, Chester, CH1 2HU, England; tel. (0244) 42878; publs Acta Crystallographica, Section A (every 2 months), Section B (every 2 months), Section C (monthly), Journal of Applied Crystallography (every 2 months), Structure Reports (2 vols a year), International Tables for X-Ray Crystallographers, Index of Crystallographic Supplies, Bibliographies, etc.

International Union of Geodesy and Geophysics (Union géodésique et géophysique internationale): Observatoire Royal, Ave Circulaire, Brussels, Belgium; tel. 374-38-01; f. 1919 to promote the study of problems relating to the form and physics of the earth; to initiate, facilitate and coordinate research into those problems of geodesy and geophysics which require international co-operation; to provide for dis-

INTERNATIONAL WORLD OF LEARNING

cussion, comparison and publication. The Union is a federation of 7 associations representing Geodesy, Seismology and Physics of the Earth's Interior, Physical Sciences of the Ocean, Volcanology and Chemistry of the Earth's Interior, Hydrological Sciences, Meteorology and Atmospheric Physics, Geomagnetism and Aeronomy, which meet at the General Assemblies of the Union. In addition, there are Joint Committees of the various associations either among themselves or with other unions. The Union organizes scientific meetings and also sponsors various permanent services, the object of which is to collect, analyse and publish geophysical data; 78 mem. countries; Pres. D. Lal (India); Vice-Pres. C. KISSLINGER (USA); Sec.-Gen. P. MELCHIOR (Belgium); publs IUGG Chronicle (every 2 months), IUGG Monographs (irregular), Proceedings of Assemblies; in addition each member association has its own series of publs.

International Union of Geological Sciences (Union Internationale des sciences géologiques): 77 rue Claude Bernard, 75005 Paris, France; tel. 707-91-96; f. 1961 as an offspring of the International Geological Congress; mems from 95 countries; Pres. Prof. E. SEIBOLD (Fed. Repub. of Germany); Vice-Pres. Prof. F. F. DE ALMEIDA (Brazil), Prof. P. F. HOWARD (Australia), Dr G. KAUTSKY (Sweden), Prof. Z. KIELAN-JAWOROWSKA (Poland), Prof. C. A. KOGBE (Nigeria), Acad. V. V. MENNER (USSR), Dr S. SHERIF (Iraq), Prof. T. TATSUMI (Japan); Treas. Dr J. A. REINEMUND (USA); Sec.-Gen. Dr C. C. WEBER (France); publs Episodes, Geological Newsmagazine (quarterly), Reviews or Annotated bibliographies on geological topics of current interest (irregular).

International Union of Immunological Societies (IUIS) (Union Internationale des Sociétés d'Immunologie): 9650 Rockville Pike, Bethesda, Md 20814, USA; tel. (301) 530-7178; f. 1969; 32 national societies; Pres. Prof. ALAIN DEWECK (Switzerland); Sec.-Gen. Dr HENRY METZGER (USA).

International Union of Microbiological Societies (IUMS) (Union internationale des sociétés de microbiologie): CNRS/LCB, 31 chemin Joseph Aiguier, 13274 Marseille Cedex 2, France; f. 1930; mems: 72 national societies; Pres. Prof. H. P. R. SEELIGER (Fed. Repub. of Germany); Sec.-Gen. Prof. J. C. SENEZ (France); Treas. Prof. S. GLOVER (UK); publs International Journal of Systematic Bacteriology (quarterly), Intervirology (monthly), Journal of Biological Standardization (quarterly).

International Union of Nutritional Sciences (IUNS) (Union Internationale des Sciences de la Nutrition): f. 1946 to study the science of nutrition and its applications; mems from 50 countries; Pres. Prof. R. BUZHAA (Yugoslavia); Vice-Pres. Prof. J. E. DUTRA DE OLIVEIRA (Brazil), Prof. J. G. A. J. HAUTVAST (Netherlands), Prof. A. VALYASEVI (Thailand); Sec.-Gen. D. D. F. HOLLINGSWORTH, Inst. of Biology, 20 Queensberry Place, London, SW7 2DZ, England; tel. (01) 581-8333; Treas. Dr J. A. CAMPBELL (Canada).

International Union of Pharmacology (IUPHAR) (Union Internationale de Pharmacologie): f. 1959 as section of Int. Union of Physiological Sciences, independent 1963; promotes international co-ordination of research, discussion, symposia, and publication in the field of pharmacol-

ogy; co-operates with WHO in matters concerning drugs and drug research, and with related international unions; three-yearly international congresses; 44 national and regional mem. socs; integral sections of Clinical Pharmacology and of Toxicology, which also arrange international meetings; Pres. J. A. BAIN (USA); Sec.-Gen. Prof. A. M. BARRETT, Worsley Medical and Dental Bldg, University of Leeds, Leeds LS2 9JT, England; publ. TIPS (Trends in Pharmacological Sciences).

International Union of Physiological Sciences: c/o Prof. A. G. B. KOVACH, Exp. Research Dept, Semmelweis Medical University, Üllöi-ut 78/A, 1082 Budapest, Hungary; f. 1953 to encourage the advancement of physiological sciences, to facilitate the dissemination of knowledge in the field of physiology, to promote the International Congresses of Physiology and such other meetings as may be useful for the advancement of physiological sciences; 51 mem. countries; last Congress Sydney, 1983; Pres. Prof. E. NEIL (UK); Sec. Prof. A. G. B. KOVÁCH (Hungary); Treas. Prof. J. M. BROOKHART (USA); publs Newsletter (annually), World Directory of Physiologists (every 3 years).

International Union of Psychological Science (Union internationale de psychologie scientifique): f. 1951 at the 13th International Congress of Psychology (the first of which took place in 1889); congresses are held every four years; membership: 44 national societies; Pres. F. KLIX (German Democratic Repub.); Vice-Pres. M. ROZENSWEIG (USA), T. TOMASZEWSKI (Poland); Sec.-Gen. WAYNE H. HOLTZMAN, Hogg Foundation for Mental Health, University of Texas, Austin, Texas 78712, USA.

International Union of Pure and Applied Biophysics: Institute of Molecular Biology and Biophysics, ETH-Hönggerberg, CH-8093 Zürich, Switzerland; tel. (01) 377-24-73; f. 1961 to organize international co-operation in biophysics and promote communication between biophysics and allied subjects, to encourage national co-operation between biophysical societies, and to contribute to the advancement of biophysical knowledge; mems: adhering bodies in 36 countries; Pres. R. D. KEYNES (UK); Sec.-Gen. K. WÜTHRICH (Switzerland); publ. Quarterly Reviews of Biophysics.

International Union of Pure and Applied Chemistry (IUPAC) (Union internationale de chimie pure et appliquée): Bank Court Chambers, 2-3 Pound Way, Cowley Centre, Oxford, OX4 3YF, England; tel. (44) (865) 717744; telex 83147 attn IUPAC; f. 1919 to promote continuing cooperation among the chemists of the member countries; to study topics of international importance which require regulation, standardization or codification; to co-operate with other international organizations which deal with topics of a chemical nature; to contribute to the advancement of pure and applied chemistry in all its aspects; 45 mem. countries; Pres. Dr W. G. SCHNEIDER (Canada); Sec.-Gen. Prof. T. S. WEST (UK); Hon. Treas. Prof. A. BJÖRKMAN (Denmark); publs Pure and Applied Chemistry (annually), Chemistry International (every 2 months).

International Union of Pure and Applied Physics (Union internationale de physique pure et appliquée): f. 1922 to promote and encourage international co-operation in physics; 40 countries are affiliated;

17 international commissions; Pres. Prof. K. SIEGBAHN; Sec.-Gen. Prof. LARKIN KERWIN, Univ. Laval, Quebec G1K 7P4, Canada; publ. IUPAP News Bulletin (5 or 6 a year).

International Union of Radio Science (Union radio-scientifique internationale): 32 ave A. Lancaster, 1180 Brussels, Belgium; tel. 374-13-08; f. 1919 to develop scientific studies connected with radio science and especially (a) to promote and organize research necessitating international cooperation, and to facilitate the discussion and publication of the results of this research, (b) to facilitate the establishment of common radio measurement techniques and standards and (c) to stimulate and coordinate studies of the scientific aspects of telecommunications using electromagnetic waves; there are 36 national committees; Pres. W. E. GORDON (USA); Sec.-Gen. J. VAN BLADEL (Belgium); publs Proceedings of General Assemblies of the URSI, Information Bulletin (quarterly), Review of Radio Science.

International Union of the History and Philosophy of Science: f. 1954 to promote research into the history and philosophy of science, to organize international congresses, and to co-operate with the other members of ICSU.

Two divisions:

Division of the History of Science: Dept of Philosophy, McGill University, 1001 Sherbrook St W, Montreal, Que. H3A 1G5, Canada; Pres. Prof. E. HIEBERT (USA); Sec. Prof. W. SHEA (Canada).

Division of Logic, Methodology and Philosophy of Science: Dept of Philosophy, University of Turku, SF-20500 Turku, Finland; Pres. Prof. DANA S. SCOTT (USA); Sec. Prof. RISTO HILPINEN (Finland).

International Union of Theoretical and Applied Mechanics (Union internationale du mécanique théorique et appliquée): c/o Chalmers University of Technology, S-41296 Gothenburg, Sweden; f. 1947 to form a link between persons and organizations engaged in scientific work (theoretical or experimental) in mechanics or in related sciences; to organize international meetings for subjects falling within this field; and to engage in other activities meant to promote the development of mechanics as a science; 35 mem. countries; the Union is directed by its General Assembly, which is composed of representatives of the organizations adhering and affiliated to the Union and of elected mems; Pres. Prof. D. C. DRUCKER (USA); Vice-Pres. Prof. F. I. NIORDSON (Denmark); Sec. Prof. J. HULT (Sweden).

#### COMMITTEES

Tasks which fall within the sphere of activities of two or more Unions have been undertaken by the following Scientific or Special Committees set up by the ICSU:

Committee on Data for Science and Technology (CODATA): f. 1966 by ICSU to improve the quality, reliability and accessibility of scientific data, including not only quantitative information on the properties and behaviour of matter, but also other experimental and observational data; Pres. Prof. Dr W. W. HUTCHISON (Canada); Secretariat: PHYLLIS GLAESER, 51 blvd de Montmorency, 75016 Paris, France; tel. (1) 525-0496; telex 630553; publs CODATA Newsletter† (quarterly), CODATA Bulletin† (irregular). International Compen-